Proposed changes to events schema

As the search Events team has worked on features using marked up data, several limitations of the existing spec have emerged. This is a proposal to modify the spec to handle the top limitations we've seen.

Summary of proposed changes

Goal	Spec modification
1. Support markup for canceled or rescheduled events	Add three new properties: eventStatus, previousStartDate, previousEndDate
2. Allow more event sites to mark up event categories	Add one new property: eventCategory
3. Support recurring events	Make startDate and endDate repeated properties
4. Collect links to official pages	Use the "url" property (this is not a modification, the feature already exists in schema.org)

1. Canceled/rescheduled events

Add three new properties:
- **eventStatus**: this property is only used if the event is canceled or rescheduled. The property can take two possible values, CanceledEvent or RescheduledEvent.
- **previousStartDate**: this property is used in conjunction with eventStatus for rescheduled or canceled events. This property contains the previously scheduled start date. For rescheduled events, the startDate property should be used for the currently scheduled start date, whereas for canceled events, the startDate property should be left blank.
- **previousEndDate**: this property is used in conjunction with eventStatus for rescheduled or canceled events. This property contains the previously scheduled end date. For rescheduled events, the endDate property should be used for the currently scheduled end date, whereas for canceled events, the endDate property should be left blank.

Why the change?
Helps us with normalization of events across sites and prevents us from showing bad/stale data. This is a particularly nasty problem because even if many sites remove old events, some others on the web do not, so our algorithms think the old event still exists.

2. Support for event categories as a property

Add one new property: eventCategory

This would permit sites to use either subtypes, ie. schema.org/MusicEvent, or specify the property as part of schema.org/Event. Many sites show events that are part of multiple categories using one event template for their own site, so the latter method is a more natural way to do category markup for them.

3. Recurring events

Allow startDate and endDate to be repeated fields.

If a single event has multiple listed start dates, this means that the event repeats on each of these days. endDate can also be repeated; in this case there should be one corresponding endDate for each startDate specified. The endDate is matched to the immediately preceding startDate.

For example:

1) Event repeats every Monday in January 2012.
<time itemprop="startDate" datetime="2012-1-2"></time>
<time itemprop="startDate" datetime="2012-1-9"></time>
<time itemprop="startDate" datetime="2012-1-16"></time>
<time itemprop="startDate" datetime="2012-1-23"></time>
<time itemprop="startDate" datetime="2012-1-30"></time>

2) Event repeats every weekend in Febuary 2012.
<time itemprop="startDate" datetime="2012-2-3"></time>
<time itemprop="endDate" datetime="2012-2-5"></time>
<time itemprop="startDate" datetime="2012-2-10"></time>
<time itemprop="endDate" datetime="2012-2-12"></time>
<time itemprop="startDate" datetime="2012-2-17"></time>
<time itemprop="endDate" datetime="2012-2-19"></time>
<time itemprop="startDate" datetime="2012-2-24"></time>
<time itemprop="endDate" datetime="2012-2-26"></time>

This method of markup is verbose but conceptually simple and can represent any combination of date ranges. Note that there is no way to specify that a recurrence occurs forever (i.e. "every Thursday at 8pm") since each instance must be listed explicitly. This is by design, to prevent stale, incorrect data from a web page that is no longer maintained from existing forever into the future.

Note that a recurring event (i.e. a Photography class offered three days in a row) is different than a multiday event (i.e. a 3-day music festival) though the difference can sometimes be blurry

(consider art exhibitions or broadway shows).

4. How to link to official event pages

Use the "url" property.

This is not a change to the existing spec, but simply a clarification. The "url" property can be used for both event details pages on the site containing markup and to link to event details pages on other sites.

Alternative proposal: add the "sameAs" property to Thing. This has been discussed intermittently but there has not been a firm conclusion to these discussions.